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Notice of Allowability	Application No.	Applicant(s)	
	10/532,735	MORI ET AL.	
	Examiner	Art Unit	
	Minh D. A	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/25/05.
2. ☒ The allowed claim(s) is/are 1-5, 7-17
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 4/25/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


DAVID VU
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William F. Westman on 9/8/06.

The application has been amended as follows:

Claim 17, page 8, line 2, deleted " accelerator" and inserted ---accelerator as set forth in claim 1---, and line 6, after lies inserted ---.--- and page 9, lines 1-2, deleted "characterized in that said electron accelerator is the electron accelerator as set forth in claim 1".

Remarks

2. The changes above have been provided to improve the claim language and improve the legibility of the claim.

Allowable Subject Matter

3. Claims 1-5, 7-17 are allowed.

Prior art does not teach that, the alternating gradient electric magnet formed a closed magnetic circuit consisting of a converging electric magnet and a diverging magnet provided on both sides of the converging electric magnet and an internal target to generate X-ray is provided inside the vacuum container right before the electron beam transporting part, and the accelerated electron beam and the X-ray can be

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selectively output in combination with all limitations recited in independent claims 1, 5, and 16.

Prior art does not teach that, an electron beam transporting part to transport the accelerated electron beam from said vacuum container characterized in that said alternating gradient electric magnet forms a closed magnetic circuit consisting of a converging electric magnet and a diverging electric magnet provided on both sides of said converging electric magnet, or an alternating gradient electric magnet forms a closed magnetic circuit consisting of a converging electric magnet and a diverging part provided on both sides of said converging electric magnet, the coil part of the electric magnet making up the alternating gradient electric magnet has a divided coil structure, the respective currents of divided coil parts change the magnetic field coefficient k so that the respective currents of divided coil parts makes the magnetic field distribution in the diameter direction of a vacuum container $B = B_0, (r/r_0)k$ (where B_0 is the magnetic field intensity on an input orbital, r_0 is an input orbital radius, and k is a magnetic field coefficient), and control the zero chromatic aberration shape about the accelerated electron beam, the electron beam intensity and energy in combination with all limitations recited in independent claim 13.

The remaining dependent claims 2-5, 7-12, 14-15 and 17 are allowable for at least above reason.

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. None of record prior arts stands alone or combination with the others discloses all limitations required in claim invention.

Citation of relevant prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Numan. (U.S. Patent No. 5,471,516) discloses a radiotherapy apparatus equipped with low dose locating and portal imaging X-Ray source.

Prior art Graf (U.S. Patent No. 6,888,919) discloses a radiotherapy apparatus equipped.

Prior art Bertsche. (U.S. Patent No. 6,487,274) discloses a X-ray target assembly and radiation therapy system and methods.

Inquiry

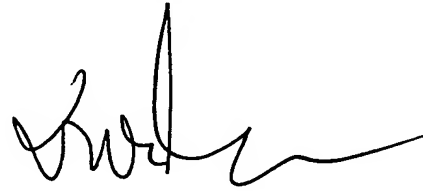
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'David Vu', with a long horizontal flourish extending to the right.

DAVID VU
PRIMARY EXAMINER

Examiner

Minh A

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9/14/06